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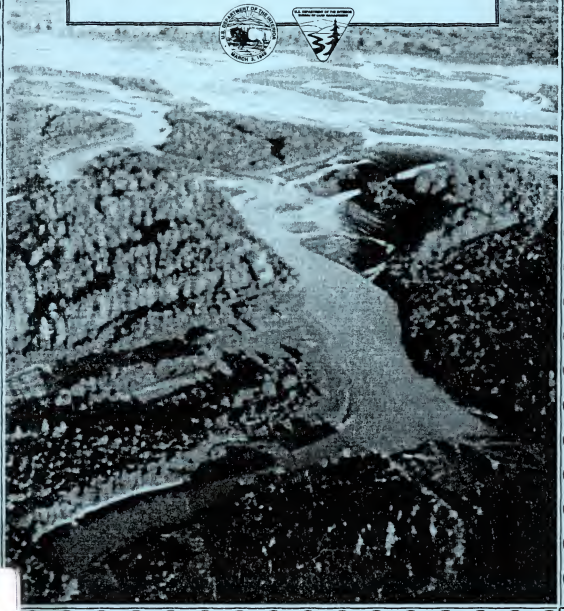
Riparian-Wetland Initiative for the 1990's

Fiscal Year 1996 Annual Report of Accomplishments



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Mission of the U.S. Department of the Interior

As the Nation's principal conservation agency, the U.S. Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, and preserving the environmental and cultural values of our national parks and historic places.

The Interior Department also assesses our mineral resources and works to ensure that their development is in the best interest of all the people.

In addition, the Department has a major responsibility for American Indian reservation communities and for people who live in the Island Territories under United States administration.

After many years of discussing a "Home Department," Congress in 1849 decided that the creation of a Department of the Interior had become necessary to administer the vastly expanded land holdings acquired by the Federal Government through the Louisiana Purchase of 1803, the Mexican war of 1846-48, and the 1846 treaty with Great Britain by which the United States acquired the Oregon Territory. In addition to the General Land Office, the custodian of these lands, the new Interior Department was given functional responsibility for the Office of Indian Affairs, Pension Office, Patent Office, and several smaller agencies, including the Census of the United States.

Over the many years since that time, other duties have been added and spun off, and the Department of the Interior's role has changed from that of a general housekeeper for the Federal Government to that of custodian of its natural resources.

The Department manages more than 440 million acres of Federal lands, including some 360 national parks, about 500 wildlife refuges, and vast areas of multiple-use lands. The Interior Department's agencies are the National Park Service, U.S. Fish and Wildlife Service, USGS's Biological Resource Division, Bureau of Land Management, Minerals Management Service, Office of Surface Mining Reclamation and Enforcement, U.S. Geological Survey, Bureau of Reclamation, and the Bureau of Indian Affairs.

Mission of the Bureau of Land Management

It is the mission of the Bureau of Land Management to sustain the health, diversity,and productivity of the public lands for the use and enjoyment of present and future generations.

Introduction

This is the Sixth Annual Accomplishments Report of the Riparian-Wetland Initiative for the 1990s, a blueprint for managing and restoring riparian-wetland areas that cover about 16,123,450 acres of wetlands and 180,600 miles of streams on BLM-managed lands. Overall, riparian-wetland areas account for more than 8 percent of the 264 million acres of land under BLM management.

The principal goal of the Riparian-Wetland Initiative is to restore and maintain riparian-wetland areas so that at least 75 percent are in proper functioning condition by 1997. The initiative, which complements the Healthy Rangelands Strategy of President Clinton and Secretary of the Interior Bruce Babbitt, takes an interagency and interdisciplinary approach to the management of riparian-wetland areas. The rangelands strategy took effect in 1995.

This report highlights the BLM's accomplishments in riparian-wetland management during Fiscal Year 1996. It gives examples of the BLM's commitment to protecting riparian-wetland areas, which are environmentally and economically valuable. It also shows how the agency is working to attain the land stewardship and wetlands conservation goals of the President and the Secretary.

Importance of Riparian-Wetland Areas

Riparian areas are lands adjacent to creeks, streams, lakes, and rivers. They are sometimes called "green ribbons" because the vegetation on waterway banks forms a ribbon-like pattern when seen from the air.

Because they contain scarce water and vegetation in the otherwise arid Western United States, these areas are important to fish and wildlife species, as well as to livestock. Since they filter the water flowing through them, riparian-wetland areas can affect the health of entire watersheds.

Wetlands are generally defined as areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support vegetation that is typically adapted for life in saturated soil. Wetlands include bogs, marshes, shallows, muskegs, wet meadows, estuaries, and riparian areas.

Riparian areas and wetlands are discussed together for purposes of reporting the BLM's progress in meeting its national goals.

Estimated Riparian-Wetland Acreage by State
(most recent data available)

State	BLM-Admin. Land	Standing-water Wetland (Lentic) Acres	Flowing-water Riparian (Lotic) Miles
Alaska	88,860,328	15,605,650	140,690
Arizona	14,255,889	22,026	800
California	17,284,258	62,393	3,000
Colorado	8,302,918	22,616	4,317
Eastern States	18,576*	4,300	10
Idaho	11,848,706	13,325	3,916
Montana	8,415,670**	62,514	4,749
Nevada	47,969,220	34,523	2,352
New Mexico	12,890,373***	4,621	440
Oregon/Wash.	16,074,621	252,000	8,504
Utah	22,147,772	19,021	4,902
Wyoming	18,402,177****	20,461	6,915
Total	266,470,508	16,123,450	180,595

* Includes Alabama, Arkansas, Florida, Illinois, Iowa, Louisiana, Michigan, Minnesota, Mississippi, Missouri, and Wisconsin
** Includes North Dakota and South Dakota
*** Includes Oklahoma
**** Includes Nebraska

Proper Functioning Condition

A riparian-wetland area is healthy and functioning when adequate vegetation, landform, or large woody debris is present to dissipate energy associated with high water flow. A healthy riparian-wetland area exhibits certain characteristics, such as:

- Purifying water by removing sediments as water moves through;
- Reducing the risk of flood damage;
- Reducing streambank erosion;
- Increasing available water by holding water in streambanks and aquifers;
- Maintaining instream flows and streambanks;
- Increasing ground water supplies;
- Supporting a diversity of wildlife and plant species;
- Maintaining habitat for healthy fish populations;
- Providing water, forage, and shade for livestock; and
- Creating opportunities for recreationists to fish, camp, picnic, and relax.

Condition of Riparian-Wetland Areas

The following tables and graphs (on pages 5, 6, and 7) depict the condition of riparian-wetland areas on BLM-managed lands for the lower 48 states in fiscal year 1996. (For information on Alaska, see page 6.) Assessments planned for riparian-wetland areas now in the "unknown" category are expected to show similar distribution in the proper functioning, functional-at-risk, and non-functional categories.

Condition of Riparian-Wetland Areas by Class in 1996
(lower 48 states)

Flowing-water Riparian Miles

Condition Class	% of All Miles	% of Miles Assessed
Proper Functioning Condition	30%*	39%***
Functional-at-Risk (susceptible to degradation)	36	45
Non-functional	12	16
Unknown	22**	(Not applicable)

* That is, 30% of all riparian miles on BLM land are known to be in proper functioning condition.

** That is, 22% of all riparian miles on BLM land are in the "unknown" category, meaning the BLM has not yet determined their condition.

*** That is, 39% of the riparian miles that have been assessed by the BLM are known to be in proper functioning condition.

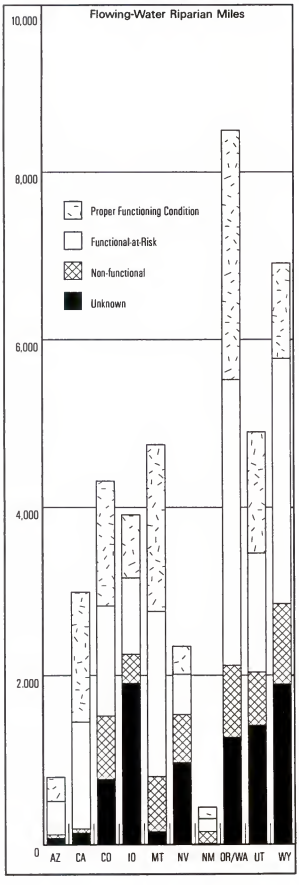
Standing-water Wetland Acres

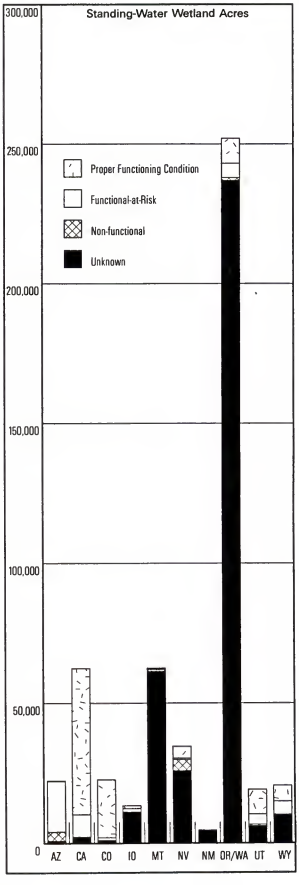
Condition Class	% of All Miles	% of Miles Assessed
Proper Functioning Condition	20%	66%
Functional-at-Risk (susceptible to degradation)	8	27%
Non-functional	2	7%
Unknown	70	(Not applicable)

What follows is information showing the functioning condition of riparian-wetland areas on BLM-managed lands at the end of fiscal year 1996. The condition classes are shown by State in miles for streams and acres for wetlands. There are four classes: Proper Functioning Condition, Functional-at-Risk, Non-functional, and Unknown. These terms are defined in the section that follows this information.

	Flowing-water Riparian Miles	Standing-water Wetland Acres
Alaska:		
Proper Functioning Condition:	131,483	12,565,000
Functional-at-Risk:	32	102,000
Non-functional:	818	650
Unknown:	8,357	2,938,000
Arizona:		
Proper Functioning Condition:	287	123
Functional-at-Risk:	393	18,038
Non-functional:	42	3,207
Unknown:	78	838
California:		
Proper Functioning Condition:	1,543	52,186
Functional-at-Risk:	1,270	7,922
Non-functional:	47	50
Unknown:	140	2,235
Colorado:		
Proper Functioning Condition:	1,481	20,568
Functional-at-Risk:	1,309	1,003
Non-functional:	753	300
Unknown:	774	745
Eastern States:		
Proper Functioning Condition:		
Functional-at-Risk:		
Non-functional:		
Unknown:	10	4,300
Idaho:		
Proper Functioning Condition:	749	1,011
Functional-at-Risk:	910	1,243
Non-functional:	342	214
Unknown:	1,915	10,857
Montana (includes North Dakota and South Dakota):		
Proper Functioning Condition:	1,978	153
Functional-at-Risk:	1,965	324
Non-functional:	652	758
Unknown:	154	61,279

	Flowing-water Riparian Miles	Standing-water Wetland Acres
Nevada:		
Proper Functioning Condition:	332	4,192
Functional-at-Risk:	476	491
Non-functional:	570	4,090
Unknown:	974	25,750
New Mexico (includes Oklahoma):		
Proper Functioning Condition:	135	111
Functional-at-Risk:	153	0
Non-functional:	140	0
Unknown:	12	4,510
Oregon/Washington:		
Proper Functioning Condition:	2,977	9,072
Functional-at-Risk	3,402	5,040
Non-functional:	850	1,008
Unknown:	1,275	236,880
Utah:		
Proper Functioning Condition:	1,442	8,750
Functional-at-Risk:	1,415	3,661
Non-functional:	627	558
Unknown:	1,418	6,052
Wyoming (includes Nebraska):		
Proper Functioning Condition:	1,137	5,660
Functional-at-Risk:	2,917	4,652
Non-functional:	958	223
Unknown:	1,903	9,926
Total BLM		
Proper Functioning Condition:	143,544	12,666,826
Functional-at-Risk:	14,242	144,374
Non-functional:	5,799	10,876
Unknown:	17,010	3,301,372
Total BLM (lower 48 States):		
Proper Functioning Condition:	12,061	101,826
Functional-at-Risk:	14,210	42,374
Non-functional:	4,981	10,228
Unknown:	8,653	363,372


Flowing-Water Riparian Miles
10,000
8,000
6,000
4,000
2,000
0
Proper Functioning Condition
Functional-at-Risk
Non-functional
Unknown
AZ
CA
CO
ID
MT
NV
NM
OR/WA
UT
WY


Standing-Water Wetland Acres
300,000
250,000
200,000
150,000
100,000
50,000
0
Proper Functioning Condition
Functional-at-Risk
Non-functional
Unknown
AZ
CA
CO
ID
MT
NV
NM
OR/WA
UT
WY

Definitions of Condition Classes

The functioning condition of riparian-wetland areas is determined by the interaction among geology, soil, water, and vegetation. The condition classes depicted in the preceding section are defined as follows:

~ **Proper Functioning Condition.** Riparian-wetland areas are properly functioning when adequate vegetation, landform, or large woody debris is present to:

- Dissipate stream energy associated with high waterflows, thereby reducing erosion and improving water quality;
  - Filter sediment, capture bedload, and aid floodplain development;
  - Improve flood-water retention and ground-water recharge;
  - Develop root masses that stabilize streambanks against cutting action;
  - Develop diverse ponding and channel characteristics necessary for fish production, waterfowl breeding, and other uses; and
  - Support greater biodiversity.

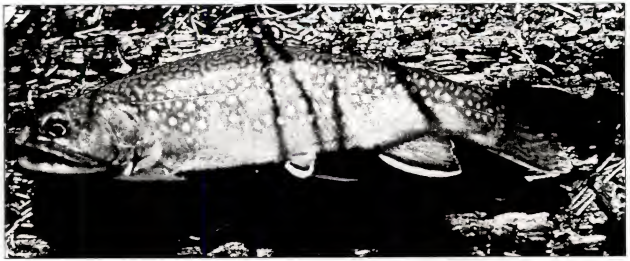
~ **Functional-at-Risk.** Riparian-wetland areas are considered functional-at-risk when they function but are susceptible to degradation due to soil, water, or vegetation characteristics.

~ **Non-functional.** Riparian-wetland areas are deemed non-functional when they do not provide adequate vegetation, landform, or large woody debris to dissipate stream energy and thus do not reduce erosion or improve water quality. The absence of certain physical characteristics, such as a floodplain, is an indicator of a non-functional riparian-wetland area.

~ **Unknown.** Riparian-wetland areas in this category are those whose functioning condition has not been determined because the BLM lacks sufficient information about them.

Future Management of Riparian-Wetland Areas

As the BLM works to achieve proper functioning condition on riparian-wetland areas, the agency is developing a Bureauwide standard for monitoring and reporting improvements in conditions so it can better assess and document progress. In 1989, each State prepared individual strategies that identified projected funding needs for riparian management activities for fiscal years 1991 to 1995. Other needs were identified independently in Waterfowl Habitat Management on Public Lands, prepared as part of a Fish and Wildlife 2000 national strategy plan series. The BLM is concentrating on inventory, planning, proper management, monitoring, project development, and project maintenance. These needs are being updated as more information becomes available.



Summary of the BLM's 1996 Accomplishments

The BLM continues to make progress in meeting the goals of the Riparian-Wetland Initiative for the 1990s. The following summary of accomplishments, based on data collected through Fiscal Year 1996, shows how the agency is improving riparian-wetland conditions in the West. In FY 1996, the BLM:

- Completed 135 riparian-related activity plans, which included the preparation or revision of at least two resource management plans that dealt with riparian issues.

- Applied intensive management to 1,623 miles of streams and 5,847 acres of wetlands in the contiguous Western States.

- Accomplished riparian inventory assessments on 3,171 miles of streams and 9,667 acres of riparian-wetlands in the contiguous Western States and on 218 miles of streams and 2,026,000 acres of wetlands in Alaska. These assessments included determinations of functioning condition status.

- Developed 283 new riparian-wetland improvement projects.

- Maintained 493 existing riparian-wetland projects.

- Monitored 107 management plans with riparian-wetland objectives.

- Acquired 22 different tracts of land in eight States with riparian-wetland areas, primarily through land exchanges.

- Filed and acquired 2,605 water rights.

- Conducted 279 instream flow assessments to determine the water quantity needed to support healthy riparian-wetland areas.

- Managed many areas with riparian values through partnerships with Federal, State, and private cooperators.

~ Completed numerous training, public outreach, and research efforts to promote awareness of the importance of healthy riparian-wetland areas.

In carrying out the Riparian-Wetland Initiative in FY 1996, the BLM coordinated its efforts with various agencies and parties, including the National Marine Fisheries Service, the U.S. Forest Service, the Fish and Wildlife Service, the Natural Resources Conservation Service, State and local agencies, and State legislatures. The Bureau also worked closely with professional groups--such as the American Fisheries Society and the Society for Range Management--and with national environmental organizations.

BLM Accomplishments Through 1996

Through FY 1996, the BLM has assessed the functioning condition of riparian-wetland areas on a grand total of 163,585 miles of streams and 12,822,078 acres of wetlands. This includes 31,252 miles of streams and 154,428 acres of wetlands in the contiguous lower 48.

State-by-State Summary of the BLM's 1996 Accomplishments

Standing-Water Wetland Inventory (by acres)

Alaska	2,026,000
Arizona	276
California	267
Colorado	1,229
Eastern States	12
Idaho	322
Montana	1,575
Nevada	133
New Mexico	3,000
Oregon/Wash	262
Utah	800
Wyoming	1,791
Total:	**2,035,676**

Flowing-Water Riparian Inventory (by miles)

Alaska	218
Arizona	128
California	186
Colorado	57
Eastern States	0
Idaho	902
Montana	460
Nevada	193
New Mexico	17
Oregon/Wash.	546
Utah	341
Wyoming	341
Total:	**3,389**

Resource Activity Plans

Alaska	0
Arizona	5
California	0
Colorado	9
Eastern States	0
Idaho	36
Montana	7
Nevada	23
New Mexico	0
Oregon/Wash.	20
Utah	5
Wyoming	30
Total:	**135**

Resource Plans Monitored

Alaska	0
Arizona	16
California	0
Colorado	1
Eastern States	0
Idaho	5
Montana	1
Nevada	76
New Mexico	0
Oregon/Wash.	0
Utah	2
Wyoming	6
Total:	**107**

Riparian-Wetland Studies

Alaska	0
Arizona	45
California	0
Colorado	124
Eastern States	0
Idaho	285
Montana	60
Nevada	48
New Mexico	0
Oregon/Wash.	37
Utah	72
Wyoming	430
Total:	**1,101**

New Riparian-Wetland Projects	
Alaska	1
Arizona	11
California	16
Colorado	42
Eastern States	0
Idaho	26
Montana	34
Nevada	21
New Mexico	6
Oregon/Wash.	14
Utah	18
Wyoming	94
Total:	**283**

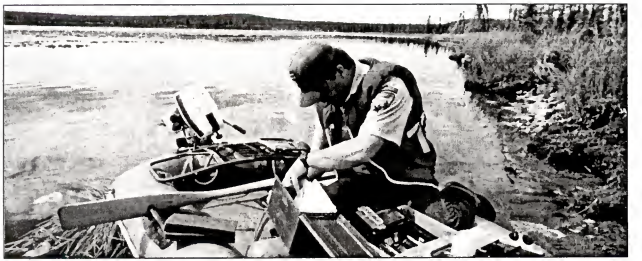
Maintained Riparian-Wetland Projects	
Alaska	0
Arizona	8
California	50
Colorado	7
Eastern States	0
Idaho	83
Montana	53
Nevada	90
New Mexico	10
Oregon/Wash.	17
Utah	65
Wyoming	110
Total:	**493**

Instream Flow Studies	
Alaska	0
Arizona	18
California	0
Colorado	18
Eastern States	0
Idaho	10
Montana	0
Nevada	1
New Mexico	0
Oregon/Wash.	230
Utah	2
Wyoming	0
Total:	**279**

New Intensive Wetland (standing water) Management Actions Applied (by acres)	
Alaska	0
Arizona	1,070
California	60
Colorado	486
Eastern States	0
Idaho	238
Montana	375
Nevada	914
New Mexico	105
Oregon/Wash.	1,476
Utah	263
Wyoming	860
Total:	**5,847**

New Intensive Riparian (flowing water) Management Actions Applied (by miles)	
Alaska	0
Arizona	78
California	46
Colorado	106
Eastern States	0
Idaho	321
Montana	56
Nevada	193
New Mexico	38
Oregon/Wash.	453
Utah	242
Wyoming	90
Total:	**1,623**

Riparian-Wetland Acquisitions/ Easements (by tract)	
Alaska	0
Arizona	0
California	2
Colorado	12
Eastern States	0
Idaho	3
Montana	1
Nevada	1
New Mexico	1
Oregon/Wash.	0
Utah	2
Wyoming	0
Total:	**22**



Goals and Strategies

Below are the goals of the BLM's Riparian-Wetland Initiative for the 1990s, and the agency's progress toward reaching those goals, for fiscal year 1996.

Goal 1

The BLM is working to restore and maintain riparian-wetland areas so that at least 75 percent are in proper functioning condition by 1997. Overall, the agency is working to get riparian zones into an advanced or desired ecological state.

The BLM is implementing strategies in different stages. For example, in those areas where plans are completed, the agency is developing projects. In other areas, the Bureau is conducting inventories to gather baseline data, which facilitates planning and project design. Where plans have been implemented, the BLM is conducting monitoring to determine the extent to which it is meeting riparian-wetland management objectives. To move toward its restoration and maintenance goals, the BLM employs a variety of strategies.

Inventory and Classification

The BLM is compiling and evaluating baseline information to determine ecological status, potential, and condition. Please see Appendix I for numerous examples.

Land Use and Activity Plan Preparation or Revision

The BLM has been developing or revising management plans that involve riparian-wetland areas or values.

- In 1996, the agency prepared or revised 135 activity plans that addressed riparian-wetland issues (e.g., Allotment Management Plans, Watershed Management Plans, Habitat Management Plans, Coordinated Resource Management Plans, and Recreation Management Plans). These activity plans

contributed to the BLM's application of intensive management to 1,623 miles of streams and 5,847 acres of wetlands in the lower 48. Activity plans included land use-plan objectives and provided appropriate management prescriptions related to riparian-wetland area management, such as livestock grazing, surface protection, fish and wildlife habitat, and recreation use.

~ The BLM is completing new, or revising existing, Resource Management Plans to resolve conflicts over riparian-wetland resources. As it does this, the agency determines the best mix of multiple uses that are consistent with existing regulations and management practices, such as the Healthy Rangelands strategy that took effect August 21, 1995, and Endangered Species Recovery Plans. Please see Appendix II for details on new or revised activity plans.

Project Development and Maintenance

The BLM initiates and maintains projects to create, improve, or maintain riparian-wetland ecological conditions. In 1996, the agency carried out 283 new on-site projects to protect, restore, or improve riparian-wetland areas. These projects included water developments; fence construction; tree, shrub, and grass plantings; prescribed burnings; and noxious weed control.

In 1996, the BLM--working with volunteers, land users, and various interest groups- maintained 567 existing riparian-wetland projects.

Monitoring

The BLM monitors riparian-wetland areas to determine whether management actions are meeting specific objectives. In 1996, the agency monitored management actions on 1,101 activity plans or sites.

When riparian objectives are not being met, the BLM revises management prescriptions and resumes monitoring to measure its progress toward management goals.

The Riparian-Wetland Initiative for the 1990s includes a directive to monitor water quality and to implement Best Management Practices to meet State and national water quality objectives. Please see Appendix III for details on monitoring progress.

Goal 2

~

The BLM protects riparian-wetland areas and associated uplands through proper land management and by avoiding or mitigating negative impacts. The objective is to protect, acquire, and expand key areas to ensure their efficient management and to bring about their maximum public benefit.

~

In order to protect or expand these areas, the agency is implementing several strategies, which are described below.

Protection and Mitigation

The BLM prevents or mitigates the negative effects of surface-disturbance activities to the max-

imum extent practical by completing Environmental Assessments (EAs) for proposed activities. The EA identifies impacts, alternatives, and mitigating measures for the proposed activity. Protective stipulations are incorporated in land-use authorizations and contracts to make sure that site-specific riparian-wetland management objectives are met. To ensure compliance with Section 404 of the Clean Water Act, the BLM coordinates permits with the Army Corps of Engineers, the Environmental Protection Agency, and the Fish and Wildlife Service, among other agencies.

The BLM ensured compliance with mitigation measures in 1996 for hundreds of surface-disturbing activities, such as road building, pipeline construction, mineral exploration and development, and recreation activities. Monitoring these activities to determine their success in mitigating impacts required several adjustments in land-use activities.

Special Designations

The BLM identifies critical or unique riparian-wetland areas that would benefit from special designation through land-use planning or other processes.

Types of special designations are Quality Management Areas (QMAs), National Riparian Conservation Areas, Areas of Critical Environmental Concern (ACECs), Research Natural Areas (RNAs), and Wilderness Study Areas (WSAs). The Bureau sometimes withdraws areas from certain types of entries or activities to protect riparian resources.

Please see Appendix IV for a list of riparian areas that were designated for special management emphasis in 1996.

Water Rights Assessments

Following the procedural requirements of various State laws, the BLM obtains on a case-by-case basis the rights or cooperative agreements for water needed to sustain riparian-wetland areas and their uses.

In 1996, the agency conducted 279 site-specific studies to determine water amounts, including instream flows, that are needed to support healthy riparian-wetland areas. Please see Appendix V for examples.

Acquisitions and Easements

The BLM acquires riparian-wetland areas primarily through exchanges, as well as through donations, purchases, and easements. Key areas sought are those that are adjacent to Waterfowl Habitat Management Areas, those that provide habitat for threatened and endangered species, those that will enhance recreational fishing, and those that will enhance the management of larger blocks of surrounding public lands. For details on riparian-wetland areas that the BLM acquired in 1996, please see Appendix VI.

Watershed Approach

The BLM takes a watershed approach to riparian-wetland management that, whenever possible, focuses on entire watersheds and involves all

affected landowners. Under this approach, the agency manages riparian-wetland areas in a manner that accommodates multiple uses. In certain instances, the BLM has to restrict some uses to achieve site-specific objectives. Please see Appendix VII for some examples of the BLM's watershed approach.

Goal 3

The BLM carries out a multifaceted riparian-wetland information and outreach program that includes training and research. The objective is to raise awareness and understanding of the importance of healthy riparian-wetland areas.

The BLM continues to expand training to ensure that agency employees have the technical and management skills needed for planning and program implementation. The BLM makes this training available to other government agencies and to the public. In 1996, the BLM conducted, sponsored, or co-sponsored numerous training sessions, workshops, and conferences. Please see Appendix VIII for details.

Public Outreach

As the BLM, the academic community, and other interested parties disseminate information about riparian-wetland areas, the public is becoming more aware of the value of these lands.

In 1996, the BLM continued its efforts to create a greater understanding of and appreciation for riparian-wetland areas among land managers, business and community leaders, and the general public. The agency expanded its public outreach program through media contact and coverage, brochures, exhibits, videos, and teaching materials. The BLM presented this information at workshops, conferences, schools, and during tours, as noted in Appendix IX.

Showcase Areas and Awards

The BLM continues to showcase riparian-wetland areas where proper management is creating multiple benefits. The agency also honors individuals or groups that have made outstanding contributions in helping the BLM reach its riparian-wetland management objectives.

Riparian Showcases

Interagency and interdisciplinary coordination continues in the Upper Muddy Creek Watershed in Wyoming. This CRM group is operating effectively to manage the Muddy Creek Riparian Showcase Area.

Riparian Awards to BLM

The Western Division of the American Fisheries Society sponsors an annual award for excellence in on-site riparian management. The award recognizes the best BLM and Forest Service work in restoring riparian areas. The Utah Vernal District Office and the Salt Lake District Office received plaques in 1996 for their outstanding management of riparian wetland areas.

BLM employee Curtis Warrick (Utah's Richfield District), received the Conservationist of the Year award from the Utah Wildlife Federation for his advancement of wildlife and riparian wetland education in Utah.

Goal 4

Riparian-wetland ecosystems, which neither begin nor end at land ownership boundaries, require effective and cooperative management by all affected parties. The BLM is working to form new and maintain existin partnerships to implement the Riparian-Wetland Initiative for the 1990s. The goal is to supplement and accelerate the agency's work by using non-Federal funds and labor to complete high-priority projects.

Funding and Volunteer Opportunities

The BLM undertakes high-priority restoration projects through joint-funding ventures, such as the Challenge Cost Share Funding Program. Through its Volunteer Program, the agency seeks and receives assistance from individuals, public land users, and other groups concerned about riparian-wetland management. Volunteers not only help the BLM complete projects and perform required maintenance, but also educate the public about the value of riparian-wetland areas.

Please see Appendix X for examples of land users and groups in four States that volunteered time and labor to help the BLM on riparian-wetland projects.

Partnerships

The BLM continued working in 1996 with a variety of private groups and governmental agencies to achieve riparian-wetland management objectives. Please see Appendix XI for numerous examples of partnerships, interagency cooperation, and interdisciplinary coordination.

Standardization and Integration

To carry out its land-management mission more effectively, the BLM coordinates its riparian-related work with other BLM initiatives, including those dealing with fish and wildlife and recreation.

Technical Guidelines

The BLM's National Applied Resource Sciences Center in Denver continues to take the lead role in the agency's development and implementation of standardized riparian-wetland guidelines. These guidelines relate to inventory, classification, management, monitoring, evaluation, and data handling. The following are the riparian management papers and technical references that were published during the period 1986-1996.

- Concepts in Stream Riparian Rehabilitation, 1986
- A Selected, Annotated Bibliography of Riparian Area Management, 1987
- The Use of Aerial Photography to Inventory and Monitor Riparian Areas, 1987
- Inventory and Monitoring of Riparian Areas, 1989
- Grazing Management in Riparian Areas, 1989
- Riparian-Wetland Classification Review, 1991
- Procedures for Ecological Site Inventory, 1992

- Management Techniques in Riparian Areas, 1992
- Greenline Riparian-Wetland Monitoring, 1993
- Process for Assessing Proper Functioning Condition, 1993
- Process for Assessing Proper Functioning Condition for Lentic Riparian-Wetland Areas, 1994
- The Use of Aerial Photographs to Manage Riparian-Wetland Areas, 1994
- Classification and Management of Montana's Riparian and Wetland Sites, 1995.
- Using Aerial Photographs to Assess Proper Functioning Condition of Riparian-Wetland Area, 1996.
- Observing Physical and Biological Change Through Historical Photographs, 1996.
- Ecology and Management of the South Fork Snake River Cottonwood Forest. 1996. ISO-96-9 Technical Bulletin.

Conclusion

The BLM's Healthy Rangelands strategy, which took effect on August 21, 1995, recognizes the importance of restoring or maintaining the health of riparian-wetland areas. The strategy is aimed at restoring to health about 100,000 acres of riparian habitat and bringing 20 million acres of upland habitat into proper functioning condition. Thus, the Healthy Rangelands strategy advances the principal goal of the Riparian-Wetland Initiative for the 1990s, which is to restore to proper functioning condition at least 75 percent of the riparian-wetland areas on public lands by 1997.

Achieving this objective and responding to the other challenges described in this report will require the continued support of Congress and ongoing cooperation between the BLM and its numerous public and private partners. With that support and cooperation, the Bureau of Land Management can achieve healthy conditions on riparian-wetland areas throughout the West.

Appendices

Appendix I: Baseline Information Collection

~ In Alaska, over 2,000,000 acres of wetlands and 218 miles of riparian habitat were assessed to determine proper functioning condition.

~ In Arizona, the BLM conducted and completed assessments on 128 miles of riparian (flowing water) habitat and 276 acres of wetland (standing water) habitat.

~ In California, the BLM district offices completed wetland PFC assessments on 267 acres and riparian PFC assessments on 186 miles. The remaining assessments will be completed on isolated tracts.

~ In Colorado, the BLM completed inventories on 57 riparian stream miles and 1,229 acres of wetlands. Data were refined in some instances with new knowledge. Additional surveys were completed that complements current riparian management efforts. Inventories covered wetland area mapping, fisheries and neotropical bird habitat, water quality, and threatened and endangered plant and animals.

~ In Idaho, the BLM completed 902 miles of riparian functioning condition assessments using contracts and BLM personnel. A total of 39 acres of wetland habitat was assessed for the Snake River Water Rights adjudication.

~ In Montana, district offices completed 460 miles of riparian functioning condition assessmenst and wetland PFC assessments on 1,575 acres. Montana has completed 95 percent of the standing water assessments for PFC and will continue assessments of functioning condition as needed on both riparian and wetland water areas.

~ In Nevada, statewide assessments were completed on 20 streams covering 193 miles. In addition, Level III Intensive stream surveys were conducted on 14 miles of streams. Recording thermographs were continued on 158 stream miles.

~ In New Mexico, the Bureau assessed the functioning condition of 3,000 wetland acres and 17 riparian miles.

~ In Oregon and Washington, the Bureau completed over 500 miles of stream inventory to determine functioning condition. Intensive surveys composed of greenline studies and plant transects were completed on the Lower Deschutes streams.

~ In Utah, the BLM conducted proper functioning condition assessments on riparian areas along 341 miles of streams and 770 wetland acres. Greenline transects were also established along streams in three districts. Moab District completed a low level aerial photograph reconnaissance on Mill Creek.

~ In Wyoming, the BLM completed proper functioning condition assessments on 341 miles of riparian and assisted the inventory of 31 state and private riparian miles. The Bureau also completed an inventory on Shirley Mountain to determine rehabilitation needs to control runoff and riparian habitat degradation. In cooperation with the Fish and Wildlife Service (F&WS) and Wyoming Department of Environmental Quality, BLM digitized over 10,000 wetland acres and added them to the F&WS data base.

Appendix II: Land Use and Activity Plan Preparation or Revision

~ In Arizona, the BLM's District Offices continue to complete interdisciplinary plans on the Gila Box Riparian National Conservation Area, Trigo/Imperial, and Empire/Cienega areas. The Parashant, Sycamore, EZ, Muleshoe, and Horseshoe interdisciplinary plans are being implemented.

~ In Colorado, the BLM completed or revised activity plans for nine areas and one Resource Management Plan. Grazing plans were developed to enhance the riparian habitat and livestock distribution within several allotments. Substantial riparian management issues continue to be addressed in the developing San Miguel Watershed Plan. An important emphasis in Gunnision is the improvement and management of riparian areas for sage grouse. Glenwood Springs completed the Castle Peak Draft Travel Management Plan that controls off-highway vehicles (OHV) use to reduce sediment/salt into the Eagle and Colorado rivers.

~ In Idaho, the BLM's District Offices completed 36 activity plans. Challis Resource Area updated plans on 30 allotments. The Road Management Plan, completed by Cottonwood Resource Area, addressed riparian and aquatic area management. Cottonwood Resource Area and the Forest Service created the restoration plan for the East Forks John Day Creek. Lemhi Resource

Area was instrumental in completing the Lemhi County Riparian Habitat Conservation Agreement.

~ In Montana, the BLM completed or revised seven activity plans, emphasizing changes in grazing use that benefit riparian areas.

~ In Nevada, the Bureau completed a total of 23 activity plans or multiple-use decisions that contain riparian objectives and specific actions to improve riparian habitat through intensive management changes and/or fencing. In addition, wild horse and burro gathers were conducted to improve rangeland condition, including riparian habitat.

~ In New Mexico a team is being established to update the 1989 New Mexico Riparian 2000 Strategy Plan.

~ The BLM's Oregon/Washington Districts prepared over 20 activity plans to restore riparian function.

~ In Utah, the Bureau implemented new or modified existing activity plans on three districts. Each activity plan is designed to improve functioning and ecological conditions of the associated riparian areas.

~ The BLM's Great Divide Resource Area developed an Allotment Management Plan (AMP) and a Habitat Management Plan (HMP) that have riparian-wetland concerns, objectives and management prescriptions. The Wyoming District offices continue to develop an additional 21 plans, and are implementing 9 and maintaining 10 activity plans (primarily AMPs) that have riparian-wetland concerns, objectives, and management prescriptions. In Lander, a Pollution Prevention Plan was submitted to Wyoming Department of Environmental Quality for the East Cottonwood Park Road Rehabilitation Project.

Appendix III: Monitoring Progress

~ In Arizona, the BLM monitored 45 study areas to determine instream flow needs, collected groundwater baseline information, and gathered information on endangered species. The Bureau monitored 16 plans with riparian objectives, including Allotment, Habitat, Watershed, Recreation, and Ecosystem Management Plans.

~ In Colorado, the BLM monitored 23 plans with specific riparian objectives and completed 124 riparian-related studies. Monitoring activities include photo plots, water quality analysis, macro-invertebrate analysis, cross sections, vegetation trend studies, waterfowl nest searches, recreation impacts, soil organisms/land health study, beaver distribution, neotropical bird study and livestock utilization. Much of the monitoring is to determine if riparian objectives identified in various activity plans are being met.

~ In Idaho, the BLM completed monitoring plans and developed annual resource area monitoring plans. All resource areas in Idaho have monitored numerous riparian-wetland sites. Monitoring includes greenline, stream-

bank stability, vegetation, temperature, sediment, water column, photo-points, utilization, water flow, and use supervision. All Districts continue to establish new monitoring sites to help determine management effectiveness and trend. Offices are preparing Analysis Interpretation Evaluations (AIEs) for 15 grazing allotments containing significant riparian-wetland areas.

~ In Montana, the BLM monitored one activity plan with riparian objectives and completed 60 monitoring studies. Riparian management efforts are being focused at the watershed level. Significant long-term progress will be made with the cooperative efforts of the various land owners.

~ In Nevada, the BLM monitored 76 activity plans or multiple use decisions to determine whether management actions on riparian-wetland areas are meeting specific objectives. In addition, 48 monitoring studies were conducted on riparian-wetland areas not covered by an activity plan.

~ In Oregon and Washington, the BLM completed intensive surveys on the Lower Deshcutes streams to monitor anadromous fishery potential and livestock grazing management. Twenty channel and vegetative cross-sections were conducted to detect changes in channel morphology and species composition. Photo points were established on key riparian areas.

~ In Utah, monitoring studies have been accomplished in all Districts and Resource Areas. These studies include vegetative sampling (greenline), water quality samples/analysis, photopoint retakes, macro-invertebrate samples, stream gauge readings, the establishment/analysis of vegetation condition in exclosures, and establishing/reading of observation wells to determine ground water levels. The Moab District instituted an intensive grazing management and monitoring system on about 12 miles of the San Rafael River. Laketown Canyon ACEC remains closed to livestock grazing to allow for range condition improvements. Grazing management changes were made on the Salt Lake and Moab Districts that specified livestock use within riparian area.

~ In Wyoming, 430 monitoring studies (photopoints; water wells; water quality, macro invertebrate, and vegetative studies) associated with several activity plans were completed.

Appendix IV: Special Designations

State Project Area	District	Special Designation
Idaho Henrys Lake Basin	Medicine Lodge	ACEC*
Idaho Lower Salmon River; Lolo Creek	Cottonwood	ACEC*
Idaho Craig Mountain; Lucile Caves	Cottonwood	ACEC*/Research Natural Area
Utah Warm Spring	Richfield	Road Closure
Utah Pass Canyon	Salt Lake	Road Closure

* Area of Critical Environmental Concern

Appendix V: Instream Flow Assessments and Studies

~ Arizona District Offices continue to conduct instream flow assessments for state appropriated water rights.

~ In Colorado, the BLM filed for water rights on 51 springs, ponds, and reservoirs and gathered data to prepare applications for another 55 sources. The agency also filed 13 oppositions to private water rights applications in order to protect riparian values. Colorado BLM conducted surveys on 20 creeks to establish instream flow rights.

~ In Idaho, the Big Butte Resource Area is completing instream flow assessments for Little Lost River Valley for the Bull Trout Recovery Plan analysis.

~ The Winnemucca District in Nevada continues to conduct instream flow assessments on 21 streams.

~ In Oregon, over 230 monitoring studies were established to measure stream flow, temperature, turbidity, and macro-invertebrates. Fifty-two monitoring studies were established to measure sediment, water temperature, and water chemistry in anadromous fish habitat. Large peak flows were identified at 12 locations.

~ In Utah, instream flow assessments are progressing on the "Narrows" section of the Fremont River and the Virgin River (Richfield and Cedar City Districts).

Appendix VI: Key Riparian-Wetland Acquisitions

Acquisition/Easement Description

California completed two land acquisitions that resulted in an additional 600 acres of wetland habitat on the Consumnes River and two miles of standing water habitat on the Upper Sacramento River.

Colorado acquired key riparian-wetland areas in 16 areas through exchange or purchase.

In Idaho, the Cottonwood Resource Area completed field investigations and NEPA work for the Bream Exchange for 30 acres along Lower Salmon River. The Medicine Lodge Resource Area initiated the following: Kinghorn purchase (138 acres), Flat Ranch conservation easement (200 acres), Ostercamp Exchange (60 acres), and Hartman exchange (300 acres). The Big Butte Resource Area received, through a reconveyance under the Carey Act, 109 acres along the American Falls Reservoir. The Lemhi Resource Area obtained 360 acres in the headwaters of Birch Creek through an exchange. Finally, the Emerald Empire Resource Area purchased 5 acres of riparian-wetlands on Gamlin Lake.

In Montana, fifty miles of riparian habitat associated with the Blackfoot River were acquired.

In New Mexico, the Roswell District acquired 8.2 miles (140 acres) of additional riparian habitat.

Nevada's Elko District completed the IMC/Mary's River Land Exchange, which includes 21 miles of riparian/aquatic habitat, including habitat for the threatened Lahonton cutthroat trout. An additional 1.2 miles of stream habitat on private land was placed in a conservation easement to manage riparian/aquatic habitat to benefit the trout population.

Utah's Salt Lake District acquired, through private exchange, 5,890 acres on the Oquirrh Mountains in Tooele County. This exchange between BLM and Kennecott Copper Corporation resulted in public acquisition of about 5 miles of riparian habitat. A second exchange in Tooele County between BLM and two individuals resulted in public acquisition of 1 mile of riparian habitat in the Stansbury Mountains.

In Wyoming, the Great Divide Resoure Area began preliminary investigations into the feasibility of a land exchange to acquire property along the North Platte River and Seminoe Reservoir.

Appendix VII: Watershed Management Examples

~ In Arizona, the BLM continues to support the implementation and completion of several interdisciplinary plans to properly manage the Gila Box Riparian National Conservation Area and the Parashant, Sycamore, EZ, Muleshoe, Horseshoe, Trigo/Imperial, and Empire/Cienega riparian areas.

~ In Colorado, District Offices are taking an ecosystem approach to managing riparian wetland areas by concentrating on entire watersheds, including all landowners and managers. Land management issues are being addressed by groups collaborating through partnerships to coordinated resource management process. Participants include local BLM offices, the Colorado Division of Wildlife, landowners, permittees, NRCS, Owl Mountain Partnership, San Miguel Watershed Coalition, Animas Stake Holders, the Forest Service, and county governments. Management results are beginning to appear both on and off BLM lands.

~ In Montana, emphasis is on inventorying and improving riparian-wetland habitat at a watershed level.

~ In Idaho, the interagency Snake River Activity/Operation Plan was implemented. Big Butte Resource Area and the Forest Service completed data collection for the Little Lost River Watershed Analysis as part of the first Bull Trout Watershed Management Strategy/Plan. The Challis Resource Area, the Forest Service, Idaho Department of Fish and Game, National Marine Fisheries Service, Shoshone-Bannock Tribes, Idaho Department of Land, and others are developing a prototype ecosystem analysis at the watershed scale using the Federal 6-Step process. The Challis Resource Area is leading the development of biological assessment for the Pahsimeroi River Basin for BLM and the Forest Service. The assessment will be the basis for Section 7 consultation. The Cottonwood Resource Area is actively participating in five cooperative watershed projects with the Forest Service, Boise Cascade

Corporation, The Nature Conservancy, NRCS and Idaho Fish and Game Department.

Watershed Management Examples

~ In Utah, an aggressive approach in noxious weed management continues to control purple loosestrife and Canada thistle that threaten riparian and wetland habitats. Richfield District is continuing its partnership with Millard County, Utah State University (USU) Extension Service, the Fish and Wildlife Service and private landowners in efforts to eradicate purple loosestrife on Warm Creek and the adjacent wetlands of Gandy Salt Marsh. Canada thistle populations continue to be monitored by Salt Lake District and USU. In the Big Creek Project Area, three beetle species were introduced. Monitoring results have shown small but hopeful signs that the insects area surviving, spreading, and killing the thistle plants.

~ In Wyoming, the Great Divide RA Upper Muddy Creek Watershed project is a cooperative effort among the Wyoming Department of Agriculture, Wyoming Game and Fish Department, Little Snake River Conservation District, Wildlife Management Institute, Seeking Common Ground, permittees and the BLM. Management goals include improving fish and wildlife habitat, decreasing point sources of erosion, and maintaining livestock production. The Shirley Mountain CRM is a similar effort that is in its early beginnings.

Appendix VIII: Examples of Training Sessions and Workshops

~ The BLM's National Applied Resource Sciences Center (NARSC) staff in Denver conducted 10 training sessions for BLM, NRCS and the Forest Service in eight states to assist in using the technical reference titled "Process for Assessing Proper Functioning Condition" in riparian areas.

~ In Colorado, several District personnel were trained in Proper Functioning Condition (PFC) and Wetlands Delineation. San Luis hosted an interagency training in PFC. Personnel also represented BLM at Wildlife Society and Colorado Riparian Association meetings. Offices taught riparian courses for teachers and students, hosted tours, formed steering committees, sponsored PFC training, and provided input into curriculum development. Two sessions were instructed by the White River Resource Area Coordinated Riparian Area Management (NTC 1737-1) and Riparian Ecological Site Inventory (ESI) (NTC-4).

~ Jarbidge RA sponsored a BLM/Forest Service proper functioning condition training session. Idaho Falls Field Office and Montana Riparian-Wetland Association co-sponsored a riparian inventory/riparian data base training session for the upper Snake River districts. Emerald Empire Resource Area personnel attended the EPA Watershed Restoration Workshop.

~ In Nevada, riparian and wetland functionality training sessions were held in the Battle Mountain District. In Reno, a wetland functionality training session was held on Long Valley Creek.

~ In Oregon's Prineville and Spokane Offices, Ellen Sippel and Todd Thompson conducted PFC training in the Oregon/Washington region.

~ The Utah Riparian Management Coalition and the Utah Resource Advisory Committee toured several riparian areas and received instruction in the procedures for determining riparian-wetland functioning condition classification.

~ In Wyoming, the Rock Springs District hosted a session of the National Training Centers' Riparian Area Management course. Two Wyoming BLMers participated in the Training Center's train-the-trainer course on PFC of Riparian Areas. In Lander, the Wyoming Game and Fish Department participated in conducting PFC assessments. Permittees and other participants (Congressional representatives, environmental groups, and livestock operators) in two large allotment tours were given on site explanations of methodology and checklist elements.

Appendix IX: Examples of Outreach Efforts

~ Colorado's Trout Unlimited received BLM's Riparian Stewardship Award for their efforts on the Trapper Creek Riparian Restoration Project. The Gunnison Resource Area participated in the Youth Summit For GREEN, San Juan Resource Area represented the BLM at Montezuma County Schools Environmental Education Day, lecturing to biology students at Durango High School. Royal Gorge Resource Area taught a riparian course for 20 teachers and riparian ecology to 200 7th-grade students. San Luis Resource Area made a presentation on Blanca Wetlands to Trout Unlimited, and the Grand Junction Resource Area presented River Dynamics at the Children's Water Festival at Mesa State College.

~ Resource Areas in Idaho provided riparian presentations to local schools and interest groups. Field tours were conducted for various groups (the Experimental Stewardship Program, Idaho Watershed Project, National Wildlife Federation, permittees, the Idaho Conservation Data Center and the local media).

~ In Nevada, the Elko offices made presentations and conducted field trips for elementary school students and the Rotary Club. Winnemucca held a fishing day for kids at Andorno Ranch pond and represented the Bureau at career fairs and the Ecology Days Educational Program. Caliente Youth Center Students planted riparian species along Clover Creek in Ely. EPA researchers studying amphibian habitat in Las Vegas received a field demonstration of PFC assessment methodology.

~ In Oregon, basic hydrology principles and riparian habitat survey techniques were taught

to numerous students from elementary to high school ages.

~ In Wyoming's Great Divide Resource Area, 15 resource specialists (and others) spent two days teaching 160 5th graders from Rawlins, Sinclair, and Bairoil Schools about resources found on public lands. One activity specifically addressed the insect, plant, and animal life found in riparian and aquatic habitats.

Appendix X:
Examples of Funding and Volunteer Efforts

State Activity	Office Source	Project Area(s)/	Funding/Volunteer
Colorado	Kremmling	Spring Creek (willow plantings)	BLM Colorado State Office, Colorado Department of Wildlife's Youth in Natural Resources
Colorado	Uncompaghre	Green Bucks (Trash collection)	220 Local Residents
Colorado	Gunnison	SW Willow Flycatche	Audubon
Colorado	San Juan	Dry Creek CRMP	Colorado Department of Wildlife, Elanco, Landowners
Colorado	Glenwood	Trapper Creek	Trout Unlimited
Colorado	State Office	Riparian Condition	CSU Student Review
Colorado	Statewide	Various Projects	Volunteers: labor & materials valued at $25,895
Idaho	Medicine Lodge	Upper Snake River	Montana Riparian Association Inventory/Evaluation & National F&W Foundation Grant
Idaho	Medicine Lodge	Flat Ranch	National F&W Foundation, Bring Back the Natives, The Nature Conservancy
Idaho	Cottonwood	Deer Creek Survey	Lewis Clark State College & Idaho Fish &Game
Idaho	Challis	Chilly Slough	The Nature Conservancy, Ducks Unlimited, Rocky Mountain Elk Foundation, Idaho Fish & Game, North American Wetland Conservation Council
Idaho	Emerald Empire	Blackwell Island	Audubon Society Planting
Utah	Moab	Negro Bill Canyon	American Hiking Society Trail
Utah	Moab	Mill Creek Trail	Plateau Restoration
Utah	Vernal	Book Cliffs	The Nature Conservancy, Rocky Mountain Elk Foundation, Utah Initiative Division of Wildlife Resources
Wyoming	Great Divide	Muddy Creek	Fish & Wildlife Foundation, Seeking Common Ground, Wildlife Institute, 391 Nonpoint Source Pollution

Appendix XI: Major Riparian-Wetland Partnerships and Interagency and Interdisciplinary Coordination

~ On Colorado's Carr Creek, the BLM, landowners, Colorado Division of Wildlife, and Trout Unlimited are implementing a plan to protect creek portions for a native strain of the Colorado Cutthroat. The BLM, the Colorado Natural Heritage Program, and 12 other organizations continue developing a statewide riparian community classification system. Several CRM groups have been established in the Little Snake and San Juan Resource Areas. The San Miguel Watershed Plan continues as a major effort among several partners.

~ Idaho's Medicine Lodge RA developed three partnerships: (1) South Fork, Henrys Fork, and Main Snake River with the Adopt-a-Wetland program in cooperation with Idaho Fish and Game, conservation groups, sportsman groups, family groups, and BLM; (2) South Fork Weed Management with the Forest Service, NRCS, outfitters, canal companies, TNC, local citizens, and the BLM; and (3) Flat Ranch with TNC, NRCS, Henrys Fork Watershed Council, and the BLM.

~ Friends of Cougar Bay adopted 12 acres of riparian-wetland habitat along Coeur d'Alene Lake in Idaho's Emerald Empire Resource Area. Lemhi Resource Area continues to be a major player in the development and completion of the Lemhi County Conservation Agreement. Interdisciplinary teams developed plans for projects to enhance/protect riparian areas. Interagency coordination was used to complete Cooperative Resource Management Plans, projects, inventories, monitoring, and management plan development and evaluation.

~ In Utah the Salt Lake District is in its third year of an intensive effort to improve and increase the size of wetland areas at Salt Wells on the north shore of Great Salt Lake. In 1996, the district finished installing the initial diking system. Benefits from the resulting increase in riparian-wetland habitat will include more open water for ducks and geese and an increased food source for shore birds that inhabit the Great Salt Lake. The project was made possible through cooperation with the Utah Division of Wildlife Resources and the Utah Reclamation Mitigation and Conservation Commission.

~ In Wyoming's Great Divide Resource Area, interdisciplinary and interagency activity and coordination continued at a high level in the Muddy Creek Riparian Showcase Area in fiscal year 1996. The Cooperative Resource Management group continued to operate effectively to address management of the Upper Muddy Creek Watershed. The Cooperative Resource Management continue to have the effective involvement of the BLM, NRCS, Little Snake River Conservation District, Carbon County Extension, Wyoming Game and Fish Department, Seeking Common Ground, private landowners, and others.

Other Examples of Riparian-Weland Partnerships and Interdisciplinary Coordination

State	Office	Project Area(s)/ Activity	Partnership
Colorado	Royal Gorge	Hwy 50 Widening	Colorado Dept.Of Hwy
Colorado	Royal Gorge	Cascade Creek Higby Ranch Exchange	USFS
Colorado	San Luis	Rio Grande River	Soil Conservation District, Rio Grande Steering Committee Restoration Committee
Colorado	Grand Junction	North Water Spring	Department of Energy, Permittee
Colorado	Gunnison	Dry Gulch & Chance Riparian	Quail Unlimited
Colorado	San Juan	Dry Creek Basin	Dry Creek Coordinated Planning Group
Idaho	Cascade	Jerusalem CRMP	USFS, Idaho Dept.Of Lands, National Resource Conservation Service (NCRS), Idaho Fish & Game, Permittee
Nevada	Elko	Maggie Creek	Neumont Gold Co.
Nevada	Elko	Marys River	Nevada Division of Wildlife, Trout Unlimited, Nevada Division of Forestry, National Fish & Wildlife Foundation
Nevada	Elko	Dorsey Creek	SWEAT
Nevada	Elko	Dry Creek	SWEAT
Nevada	Ely	Clover Creek	Caliente Youth Center
Utah	Richfield	Purple Loosestrife Eradication	Millard Co., Utah State University Extension Service, USF&WS, Private Landowners
Utah	Salt Lake	Big Creek Biological	Utah State University Control Agent Study
Utah	Cedar City	Musk Thistle Control	Garfield County
Wyoming	Great Divide	Cooperative Management	Wyoming Game and Fish Dept., Plans Little Snake River Cons. District, Carbon Co. Ext., NRCS, Water for Wildlife, Seeking Common Ground, USFS, University of Wyoming, Wild Horse Groups, BIA, Recreationists, Wyoming Wildlife Federation, Trout Unlimited, Wyoming Flycatchers

Other Examples of Riparian-Weland Partnerships and Interdisciplinary Coordination (continued)

State	Office	Project Area(s)/ Activity	Partnership
Wyoming	Lander	Riparian Utilization Transects	Wyoming Game and Fish Dept., NRCS, Conservation District, USFS, Permittees
Wyoming	Lander	Diamond Spring Fishery	Popo Anglers Fishing Club, Reservoir Wyoming Game and Fish Dept.
Wyoming	Lander	Skull Gulch Fence	Lander Schools Youth
Wyoming	Lander	Spring Creek Reservoir	Wyoming Game and Fish Dept.
Wyoming	Lander	Cottonwood Spring	Wyoming Game and Fish Dept. Enhancement
Wyoming	Lander	Carmody Lake Gully	Popo Anglers Fishing Club & Plug Conservation District

Appendix XII: The Riparian Staff of the Bureau of Land Management

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